Project Hoosier
# SAFE-T News
Summer 2004

## INSIDE



# Open Channels:
## The Federal Focus on Interoperability

Three years after the 9/11 tragedy, the subject of public safety interoperability is back in the news and on the minds of policymakers. From the recently released report from the 9/11 Commission to legislation introduced by U.S. lawmakers to reports issued by the General Accounting Office (GAO), lawmakers and policy setters at the national level are recognizing the crucial role interoperability plays in the quest to keep Americans safe.

**9/11 Commission Cites Interoperability Failures**
According to the 9/11 Commission Report, " The inability to communicate was a critical element at the World Trade Center, Pentagon, and Somerset County, Pennsylvania, crash sites, where multiple agencies and multiple jurisdictions responded. The occurrence of this problem at three very different sites is strong evidence that compatible and adequate communications among public safety organizations at the local, state and federal levels remains an important problem."

**Federal Reports**
Echoing this sentiment, a recent report from the GAO says that effective, collaborative, interdisciplinary, and intergovernmental planning is required to "fix" the nation's interoperable communications problems. The report suggests that the federal government can and should take a leadership role in support of efforts to improve interoperability by developing national requirements and a national architecture, developing nationwide databases, and providing technical and financial support for state and local efforts to improve interoperability.

The GAO report recommends that the Department of Homeland Security: (1) continue to develop a nationwide database and common terminology for public safety interoperability communications channels; (2) assess interoperability in specific locations against defined requirements; (3) encourage states to establish and support a statewide body to develop and implement detailed improvement plans, supported by federal grants; and (4) encourage that grant applications be in compliance with statewide interoperability plans, once they are developed.

**Federal Legislation**

**"Federal Focus on Interoperability" continued on p.2...**

# SAFE-T Pilots Mobile Data Projects

Tune into "NYPD Blues," "The Shield," "CSI" or any one of the other police/crime-based dramas on television every evening and you'll get a glimpse of the changing face of law enforcement today. The reality is that fighting crime is as much a contest of technology as it is simply chasing the bad guy. Even for routine stops, mobile data technology can save huge amounts of time - and money - for public safety agencies.

Other first responders, such as firefighters, also depend on technology to protect the public. Real-time communications, hazardous situation information and management of resources are all roles mobile data will play in the future for firefighters.

"Interoperability is as important for data as it is for voice," said IPSC Chair and State Police Superintendent Mel Carraway. "We must be able to share digital information quickly and efficiently in order to best protect the citizens of Indiana."

Fortunately, the IPSC staff is now engaged in the next major phase of Project Hoosier SAFE-T, which is to bring the mobile data system on line. The system design includes mobile data base stations at most of the Hoosier SAFE-T communication sites. Each mobile data base station (channel) will support a minimum of 175 simultaneous users.

Project Hoosier SAFE-T has recently completed the installation of all network infrastructure hardware and software necessary to support mobile data users in our current build out. Pilot projects are now underway in Johnson and Montgomery Counties. Final installation and programming is underway for the mobile RF modems and laptop software to be used for computer aided dispatching, car-to-car messaging and access to IDACS from the mobile device. At the conclusion of the pilot programs, Montgomery County will have approximately 20 users involved, while the Johnson County Consortium is expected to deploy 200 mobile data devices throughout several public safety agencies in the county.

The mobile data system is designed to support many different mobile laptop clients. Currently Aether, Spillman, and Motorola's Premier Mobile Data Client are supported. As other agencies join the system, it is expected that HTE, New World and others will be participating as well.

Agencies located anywhere in our current build out wishing to implement mobile data should call a SAFE-T Field Coordinator for more information: Steve Skinner, 317.233.8625 or Dave Vice, 317.232.8993.

**"Federal Focus on Interoperability"cont. from p. 1...**

U.S. Congressional members are also paying attention to the interoperability crisis. In late July, U.S. Senators introduced S. 270,1 "a bill to provide incentives for the sharing of homeland security information, promote the development of an information sharing network, provide grants and other support to achieve communications interoperability, and establish an Office of Information Sharing, and for other purposes."

The legislation would: (1) Authorize $3.3 billion over five years to fund interoperability solutions; (2) Create an Office of Information Sharing within the Department of Homeland Security to develop and implement a national strategy and provide the leadership, outreach, and technical assistance necessary to achieve interoperability; (3) Require the Secretary of Homeland Security, with intelligence and other federal agencies, to establish a System-wide Homeland Analysis and Resource Exchange Network (SHARE) to assist in the sharing of homeland security information among all levels of government; (4) Require the Secretary of Homeland Security to develop an annual performance plan and evaluate senior officials on achieving measurable progress. Employees across government would be rewarded for developing innovative practices, procedures, or technologies to foster appropriate sharing of homeland security information.

The bill is currently in the Senate Committee on Government Affairs.

Members of the U.S. House introduced HR 4400, the "Connect Act" that would establish a wireless communications office within the Homeland Security Department and establish a $5 billion grant program to help first responders become interoperable. The bill has been assigned to both the Committee on Energy and Commerce the Select Committee on Homeland Security.

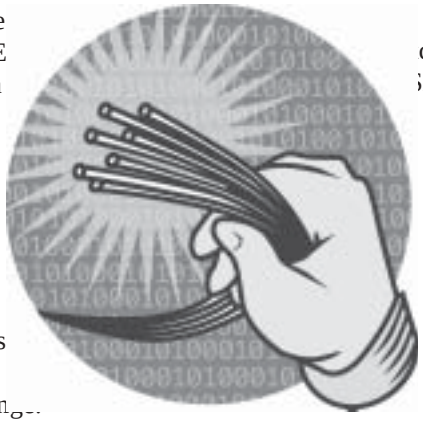
**On the web**

To track the Senate or House bill, go to http://thomas.loc.gov and enter either H 4400 or S 2701 in the "Bill Number" search field.

# Interoperability Solutions

## "Patching" the Way to a Fix

Public safety professionals across Indiana use a wide range of equipment and radio spectrum to communicate. Therefore, linking first responders within a city and county – let alone the entire – is a huge undertaking. Project Hoosier SAFE is based on a trunked, 800 MHz voice and data system, but there are many ways to interoperate on the system without having to purchase new equipment.



Many communities plan to migrate to the 800 MHz system as soon as it is economically feasible, but are looking for interim solutions to tide them over. Some communities are happy with their current VHF and UHF conventional systems and have no plans to change. Consequently, until the time comes when all public-safety agencies are on the same radio system, "patching" devices can be used to achieve multi-agency interoperability through the SAFE-T network in tactical or critical situations. As with most interoperability solutions, there are pros and cons to patching.

### Patching Advantages

A patch is a connection between the console dispatches of disparate systems that can accommodate different radio interfaces. Usually, they are self-contained, portable units consisting of a power source and multiple pre-wired and pre-programmed radios. They can provide on-scene interoperability by linking radios, SATCOM, cellular, Wi-Fi and landline phones directly and over IP networks. They can serve as a bridge between conventional systems as well as between conventional systems and trunked systems, like the SAFE-T system.

Using a Patching device can be cheaper than buying new radios. Some existing consoles already have patching capabilities, so there is little or no cost. Purchasing a patching unit costs roughly $10,000.

### Patching Disadvantages

While patching can provide interoperability during tactical events, it is not an ideal solution for long-term interoperability. The major reason is because permanent patches use a great deal of channels and other resources. For example, if an agency patches a VHF frequency to an 800 MHz talkgroup, everything broadcast on the VHF side is rebroadcast on the 800 side and vice-versa. This ties up multiple channels and can result in busy signals. Therefore, Project Hoosier SAFE-T cannot and does not allow permanent patches onto the system.

Patching also doesn't extend the range of coverage. If an agency patches onto the SAFE-T system during a mission-critical situation, it cannot talk statewide. First responders must stay within the existing coverage of their radio system. Dead spots will still be dead spots.

ching can also be a human resource drain. Since a patch must be monitored at all times, it requires round-the-clock staffing while active as well as a higher degree of training for users.

Finally, patching is usually limited to audio transmissions, and with the demand for data transmission (see "SAFE-T Introduces Mobile Data Pilot Projects," opposite page) increasing daily, the technological limitations of patching systems is obvious.

In short, patching can be a viable and cost-effective short term solution for achieving interoperability during tactical and mission critical situations. But for day-to-day and long term interoperability, a more comprehensive solution may be preferable.

## Health Dept. Funds to Build Two Zone Controllers

The word "interoperable" applies to much more than public safety communications. It implies cooperation, connection and interdependence. In the truest sense of this word, the IPSC has interoperated with many different agencies, and the huge success of Project Hoosier SAFE-T thus far has been greatly enhanced by many partnerships.

One of the most recent partnerships has paired IPSC with the State Department of Health in the effort to prepare for bioterrorism attack or other health-related catastrophe. Recognizing that bioterrorism disaster planning must address communication requirements and that interoperability is critical to a successful response, the U.S. Center for Disease Control has designated $4.7 million of Homeland Security bioterrorism funds to use towards Project Hoosier SAFE-T. This money will allow the IPSC to build and equip the two Zone Controllers for the southern part of Indiana. Remaining monies can be used to construct communications sites.

# Project Update: 37 Sites/10,000 Radios!

Project Hoosier SAFE-T has cleared major new milestones in the effort to save lives and money!

To date, SAFE-T has established communication sites in the following counties: Allen, Clinton, Elkhart, Fountain, Franklin, Fulton, Huntington, Jasper, Jefferson, Johnson, Kosciusko, Lake, LaPorte, Madison, Marion, Marshall, Miami, Montgomery, Morgan, Noble, Parke, Porter, Pulaski, Putnam, Ripley, St. Joseph, Steuben, Switzerland, Tippecanoe, Wabash, Whitley, Vermillion and Vigo.

There are 37 communication sites on the air. The IPSC aims to have 78 of the 126 sites operational by the end of the first quarter, 2005; this will provide mobile radio coverage for approximately 2/3 of the state's landmass. IPSC staff has programmed more than 10,000 radios onto the system. Further, to date, Project Hoosier SAFE-T has not borrowed a dime to build the system!

For a current map showing the SAFE-T system build-out, visit our web site, http://www.state.in.us/ipsc/safe-t/pdfs/126_site.pdf

## You Got a Problem with That?

SAFE-T users who encounter problems with the system can now access and submit a problem report form online!

Visit
http://www.in.gov/ipsc/safe-t/pdfs/RadioProblemForm.pdf
to access and complete the form.


**SAFE-T in a Nutshell**

SAFE-T is a statewide, interoperable, wireless public safety communications system for Indiana local, state, and federal first responders/public safety officials. SAFE-T operates on a Motorola 4.1 Astro Smartzone OmniLink 800 MHz trunked voice and data system. It supports both analog and digital radios, providing 95% mobile radio coverage statewide using 126 communications sites connected by T1 lines and microwave.

SAFE-T will allow seamless, interoperable and reliable communications among local, state, and federal public safety agencies during routine, emergency and task force situations. SAFE-T will strengthen community safety and security, minimize costs and barriers to communications, and break down regionalization of systems to combat crime, natural disaster and terrorism. SAFE-T was designed to include wide voluntary participation of public safety agencies/first responders while respecting local autonomy.

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